

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001288**Date Inspected:** 22-Jan-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Zhi Zhonghai			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A

Bridge No: 34-0006**Component:** Caltrans Mock-Up, OBG**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Ken Jobes, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, to randomly monitor welding and Quality Control (QC) functions. While on site, the QA Inspector observed and/or discovered the following:

The Caltrans QA Inspector randomly observed that six WT Stiffeners had been welded to Side Plate SP21 at the gantry work station in Bay 3. Side Plate 21 is designated on the drawings with two different piece marks. One end of SP21 is designated as a Seismic Performance Critical Member (SPCM) and is designated by Piece Mark PL78B. The other end is not designated SPCM and is identified by Piece Mark PL78A. Also, opposite ends of the same WT stiffener are identified with different piece marks – RS17A identifies the SPCM end and RS8AB identifies the non-SPCM end. The QA Inspector observed the cleaning of the fillet welds joining the WT stiffeners to the side plate.

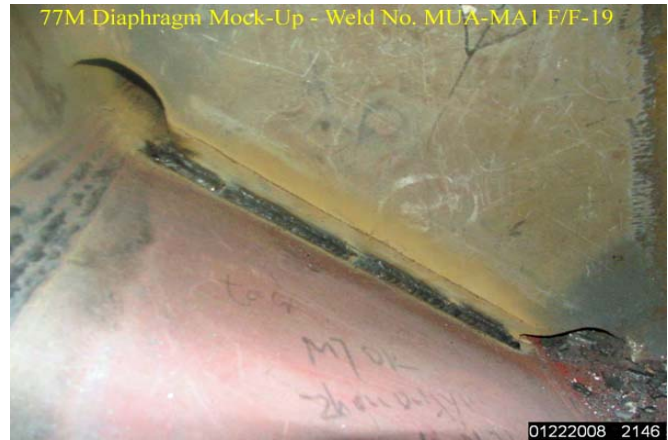
The Caltrans QA Inspector also randomly observed the manual Shielded Metal Arc Welding (SMAW) on the 77M Tower Mock-Up Diaphragm Assembly, Weld No. MUA-MA1 F/F-19. The welder was Yang Lei (I. D. 040690), whose qualifications for this welding are listed in ZPMC's Master List of Welders/Welding Operators/Tack Welders, Revision 7. ZPMC CWI, Zhu Zhonghai (AWS CWI No. 07072121) was present during this welding. The QA Inspector also noted that documentation of minimum/maximum preheat/interpass temperatures, voltage, amperage and travel speed by the CWI were within the specified ranges of the WPS up until the time of random observation. The QA Inspector also randomly measured the amperage and voltage by use of a calibrated Fluke amp/volt meter, and used temperature indicating crayons to measure minimum preheat and minimum/maximum interpass temperature. This is a partial joint penetration (PJP) groove welds and were being welded in the vertical

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groove (3G) welding position. Welding Procedure Specification (WPS) WPS-B-T-4313-TC-P5-1 was being used for this welding. The specified electrode, E7018-1, 4.0 mm diameter, was being used and portable electrode ovens were in use.

All observations appeared to meet the requirements of the job specifications.



Summary of Conversations:

As identified within the contents of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Jobes, Kenneth	Quality Assurance Inspector
Reviewed By:	Cochran, Jim	QA Reviewer